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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,994	08/29/2006	George Nakane	071971-0715	4215

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EXAMINER	
YANG, MINGHUI	
ART UNIT	**PAPER NUMBER**
2887	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/590,994	NAKANE ET AL.	
	Examiner	Art Unit	
	MINGHUI YANG	2887	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 July 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/29/2006, 7/10/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) or (f), or 365(a)-(b), to Japanese application 2004-120168 filed on April 15, 2004. A certified copy of the foreign priority application has been received in this national stage application from the International Bureau.

Claim Objections

2. Claims 4 and 11 are objected to because of the following informalities: The phrase "*the number of transistors of the series of resistors*" lacks antecedent basis and appears to be a typo. For the purposes of examination, the examiner assumes claims 4 and 11 should read "*the number of **resistors** of the series of resistors.*" Appropriate correction is required.

Claim Rejections - 35 USC 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1-5, 7-15** are rejected under 35 U.S.C. 103(a) as being obvious over Kofler, WO 2004/013806 (cited by applicant) in view of Quan, US Pg Pub 2005/0258940.

Regarding claim 1, Kofler teaches a semiconductor integrated circuit with a power supply voltage supplied by electromagnetic waves received via an antenna coil

and exchanges data via the antenna coil (see abstract, page 9 paragraph 1), comprising:

a memory circuit for storing data (storage means 12, see page 7 paragraphs 3 and 4);

a pair of terminals connected to the antenna coil (see page 6 paragraph 3);

a modulating transmitting circuit for transmitting data via the antenna coil by varying a load between the terminals according to the data transmitted (see page 6, paragraph 3), and;

a transmission control circuit for outputting data stored in the memory circuit to the modulating load circuit (see page 7 paragraph 4).

However, Kofler does not suggest a reset signal generating circuit which generates a reset signal to the transmission control circuit when the power supply voltage decreases below a predetermined threshold value, which is lower during a period when the transmission status signal is being output than during a period when the transmission status signal is not being output.

Quan teaches an RFID communication system (see abstract) which operates in a low powered state until the receiver receives an activation signal (see [0050]-[0051]) which causes the RFID transponder to ender a powered up state (see [0003]). The transmitter is controlled by a circuit which generates an excitation signal with a lower threshold in the powered up state (see [0014], [0048]).

It would have been obvious to one of ordinary skill in the art at the time of invention to improve the integrated circuit chip of Kofler using the activation signal

generation circuit of Quan. The motivation would have been to reduce the power requirements of the chip (see [0019]).

Regarding claims 2, 3, and 4, Kofler in view of Quan teach the circuit of claim 1 above, but Kofler does not describe a reset signal generating circuit or its components.

Quan teaches a circuit 60 which generates an excitation signal with a lower threshold in the powered up state (see [0014], [0048]). The circuit includes a voltage dividing resistor in series with three more resistors for dividing the power supply voltage (resistors 66, 68, 70, 72, see [0057]), the number of resistors in series is changed based on the charge on the capacitor (see [0057]).

It would have been obvious to one of ordinary skill in the art at the time of invention to improve the integrated circuit chip of Kofler modified by Quan using the activation signal generation circuit of Quan. The motivation would have been to reduce the power requirements of the chip (see [0019]).

Regarding claim 5, Kofler in view of Quan teach the circuit of claim 1 above, but Kofler does not describe a transmission status signal.

Quan teaches the transmission control circuit is configured to output the transmission status signal while simultaneously outputting data stored in the memory circuit to the modulating transmitting circuit (the status is monitored simultaneous to the data processing and communicated to the user, see [0074]).

It would have been obvious to one of ordinary skill in the art at the time of invention to improve the integrated circuit chip of Kofler modified by Quan using the

activation signal generation circuit of Quan. The motivation would have been to monitor how much power supply is available to the chip (see [0074]).

Regarding claim 7, Kofler in view of Quan teach the circuit of claim 1 above, but does not suggest the transmission control circuit is configured to stop outputting the transmission status signal after an amount of time greater than the amount of time required for outputting data to the modulating transmitting circuit has elapsed.

Quan teaches that a method of RFID power consumption is by reducing by directing the powering off of circuits that are not in use (see [0073]).

It would have been obvious to one of ordinary skill in the art at the time of invention to improve the integrated circuit chip of Kofler modified by Quan by turning off unused circuit as taught by Quan. The motivation would have been to decrease power consumption (see [0073]).

Regarding claims 8-11, Kofler in view of Quan teach the circuit of claim 1 above, but Kofler does not suggest a high voltage reset signal generating circuit for resetting the transmission control circuit when the power supply voltage exceeds a predetermined threshold value.

Quan teaches second activation signal circuit 80 having common components with the first circuit 60 (see [0060]) which generates an excitation signal based on the current voltage level (see [0014], [0048]). The circuit includes a voltage dividing resistor in series with three more resistors for dividing the power supply voltage, the number of resistors in series is changed based on the charge on the capacitor (see [0057]).

It would have been obvious to one of ordinary skill in the art at the time of invention to improve the integrated circuit chip of Kofler modified by Quan using the activation signal generation circuit of Quan. The motivation would have been to monitor how much power supply is available to the chip (see [0074]).

Regarding claim 12, Kofler in view of Quan teach a contactless information system comprising:

the contactless information medium including the semiconductor integrated circuit of claim 1 above and an antenna coil connected to the semiconductor integrated circuit for transmitting and receiving electromagnetic waves (see page 6 paragraph 3), and;

a data transmitting and receiving device for supplying a power supply voltage to, and exchanging data with, the contactless information medium via electromagnetic waves (see page 3 paragraph 3).

Regarding claims 13-15, Kofler in view of Quan teach the circuit of claims 2-4 above, but Kofler does not describe a transmission status signal.

Quan teaches the transmission control circuit is configured to output the transmission status signal while simultaneously outputting data stored in the memory circuit to the modulating transmitting circuit (the status is monitored simultaneous to the data processing and communicated to the user, see [0074]).

It would have been obvious to one of ordinary skill in the art at the time of invention to improve the integrated circuit chip of Kofler modified by Quan using the

activation signal generation circuit of Quan. The motivation would have been to communicate how much power supply is available to the chip (see [0074]).

5. **Claim 6** is rejected under 35 U.S.C. 103(a) as being obvious over Kofler in view of Quan, and further in view of Anderson et al, US Patent 6,608,551.

Kofler in view of Quan teach the circuit of claim 1 above, but does not describe a buffer for holding data stored in memory.

Anderson et al teach a RFID tag 14 having data buffers 12 in addition to another memory (col. 3 lines 40-45), so data can be actively stored within the buffers when the RFID device is in communication with a read/write device (col. 4 lines 11-15).

It would have been obvious to one of ordinary skill in the art at the time of invention to include data buffers as taught by Anderson et al in the integrated circuit chip of Kofler and modified by Quan. The motivation would have been to temporarily store data from memory (col. 5 lines 5-15).

Summary

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINGHUI YANG whose telephone number is (571)270-3349. The examiner can normally be reached on Mon - Fri 9 AM-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve S. Paik can be reached on 571-272-2404. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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